



# 2013 Nebraska Sports Concussion Survey Results:

## Athletic Director Survey

June 2013



NEBRASKA SCHOOL ACTIVITIES ASSOCIATION



# **2013 Nebraska Sports Concussion Athletic Director Survey Results**

Nebraska Department of Health & Human Services  
Division of Public Health  
Injury Prevention Program

Nebraska School Activities Association

Brain Injury Association of Nebraska

Nebraska State Athletic Trainers Association, Inc.

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## Executive Summary

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### ***Background: evaluating the effectiveness and impact of Nebraska's Concussion Awareness Act (LB260)***

In an attempt to reduce the long-lasting consequences of second-impact concussions, the Nebraska State Legislature enacted the Concussion Awareness Act (LB260) in 2012. There are four essential components of LB260, which are:

- Concussion education training must be made available to all coaches on how to recognize symptoms of a concussion, and how to seek proper medical treatment.
- Athletes and parents must be provided with information about concussions prior to an athlete's participation in school sanctioned sports on an annual basis.
- An athlete suspected of having a concussion must be removed from participation and may not return until evaluated by an appropriate licensed health care professional.
- An athlete removed from participation for a suspected concussion must receive written and signed clearance from an appropriate licensed health care professional and from the athlete's parents prior to returning to play.

In order to evaluate the effectiveness and impact of this new law, the Concussion Evaluation Work Group was formed from individuals participating in the Injury Community Planning Group (ICPG). The work group created three separate surveys to answer a broad array of evaluation questions. Head coaches of organized high school sports, athletic directors and/or activities coordinators at high schools, and youth who received a concussion as a result of participation in an organized sport were surveyed.

**This report presents the results of the Athletic Director Survey.**

### ***Survey sample***

- 164 surveys were collected from athletic directors/activities coordinators of organized school sports (NSAA sanctioned) across Nebraska via SurveyMonkey from April 1 to April 15.
- Response rate: 53% of surveys were completed (307 surveys sent out).
- Approximately one-third of respondents were from Class A and B schools, and two-thirds were from Class C and D schools.

## **Survey Results**

***1. By and large, schools are following the mandates of Nebraska's Concussion Awareness Act (LB260), though there are some areas for improvement (especially in the area of removal from play).***

- **94%** of surveyed athletic directors/activities coordinators reported that their school has made concussion training available to coaches at their school. Among those whose school has made concussion training available 77% reported that their school makes it mandatory for coaches to take concussion training.
- **90%** reported that their school provides education to parents and students about the signs and symptoms of concussions before the start of practice.
- **76%** reported that coaches or athletic trainers always remove an athlete with a suspected concussion from play.

- **96%** reported that an athlete's parents or guardians are always notified after a suspected concussion.
- **95%** reported that their school requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play.
- **69%** reported that their school always requires the parents of an athlete with a suspected concussion to provide written approval before their child returns to play.

***II. LB260 has had an impact on school concussion policies.***

- **63%** of surveyed athletic directors/activities coordinators reported that their school has a formal written policy for removal and return to play for athletes with suspected concussions.
- Among those whose school has a formal written policy for removal and return to play for athletes with suspected concussions, **75%** reported that their school's policy was developed as a result of LB260. Schools of Classes B, C, and D were more likely to have developed a concussion policy as a result of LB260, compared to Class A schools.

***III. Some schools are engaging in return-to-learn activities for athletes returning to the classroom after a concussion, though it is generally not a part of school policy.***

- **34%** of surveyed athletic directors/activities coordinators reported that their school has a designated person for concussion management to assist student athletes when they return to school after a concussion.
- **60%** reported that their school notifies teachers when an athlete with a suspected concussion returns to the classroom.
- **34%** reported that their school has provided education to teachers about the signs and symptoms of concussions and return-to-learn accommodations/management of concussions.
- **6%** reported that their school has a written return-to-learn policy that provides accommodation for the classroom work of a student athlete with a suspected concussion.

***IV. Small schools (i.e., Class D) may require some technical assistance in the development of concussion policies and protocols.***

- Compared to larger schools (i.e., Class A, B, and C), Class D schools were less likely to...
  - Have an athletic trainer (ATC) on staff and available for practices and competitions (the majority of Class C schools are also unlikely to have an ATC).
  - Keep concussion histories for student athletes.
  - Report that an athlete with a suspected concussion is always removed from play.
  - Keep track of medical clearances for student athletes who have sustained concussions.
  - Make concussion education training available to all coaches, make it mandatory, and keep track of which coaches have received the training.
  - Provide education to parents and students about the signs and symptoms of concussions before the start of practice, and have a shared responsibility form for parents defining their role in the event that their child sustains a concussion.
  - Have a written formal policy for removal and return to play for athletes with suspected concussions.

# 2013 Nebraska Sports Concussion Athletic Director Survey Results

## Introduction

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The Centers for Disease Control and Prevention (CDC) define a concussion as a "type of traumatic brain injury, or TBI, caused by a bump, blow, or jolt to the head that can change the way your brain normally works" ([www.cdc.gov/concussion/sports](http://www.cdc.gov/concussion/sports)). From 2009-2011, there were 1,089 sports-related concussions that required medical attention (emergency department visit, inpatient hospitalization, visit to physician's clinic, etc.) among those ages 5 to 19 in Nebraska (Nebraska Hospital Discharge Data).

In an attempt to reduce the long-lasting consequences of second-impact concussions, the Nebraska State Legislature enacted the Concussion Awareness Act (LB260) in 2012. There are four essential components of LB260, which are:

- Concussion education training must be made available to all coaches on how to recognize symptoms of a concussion, and how to seek proper medical treatment.
- Athletes and parents must be provided with information about concussions prior to an athlete's participation in school sanctioned sports on an annual basis.
- An athlete suspected of having a concussion must be removed from participation and may not return until evaluated by an appropriate licensed health care professional.
- An athlete removed from participation for a suspected concussion must receive written and signed clearance from an appropriate licensed health care professional and from the athlete's parents prior to returning to play.

In order to evaluate the effectiveness of this new law, the Concussion Evaluation Work Group was formed from individuals participating in the Injury Community Planning Group (ICPG). The work group designed three surveys to answer the following evaluation questions:

- Do coaches and athletic trainers have concussion training available? Are they aware of the signs and symptoms of concussions?
- Do youth and parents receive education on concussions before the start of practice?
- Are youth athletes with a suspected concussion as a result of a school related activity removed from play? Are their parents given notification? Are they offered post-concussion assistance when returning to school? Are they cleared by a licensed medical professional and parent before returning to play?
- Do schools and youth sport organizations have a policy in place for removal, clearance, and return to play?
- Do schools and organizations have a policy for paperwork and record keeping when a youth receives a concussion?
- Are second impact concussions being prevented?

Three surveys were developed to gather feedback from one of the following groups: (1) head coaches of Nebraska high school organized sports, (2) athletic directors and activities coordinators at Nebraska high schools, and (3) youth who received a concussion as a result of participation in an organized sport.

**This report presents the results from the Athletic Director Survey** of Nebraska high school organized sports. An online survey was administered via SurveyMonkey in April 2013 to athletic directors of Nebraska High Schools that offer school organized sports.

## Survey Response and Respondent Characteristics

A total of 307 Nebraska Sports Concussion Athletic Director Surveys were sent out electronically via SurveyMonkey to the individual designated as "athletic director" in the NSAA database at each high school offering organized school sports across the state of Nebraska. A total of 164 surveys were completed, making for a response rate of 53.4%. The majority (67 out of 93) of Nebraska counties had at least one representative on the survey.

The vast majority (86%) of respondents indicated that their school is public (Table 1).

Table 1	Type of school (n=164)
	Public
	Private/parochial
	86.0%
	14.0%

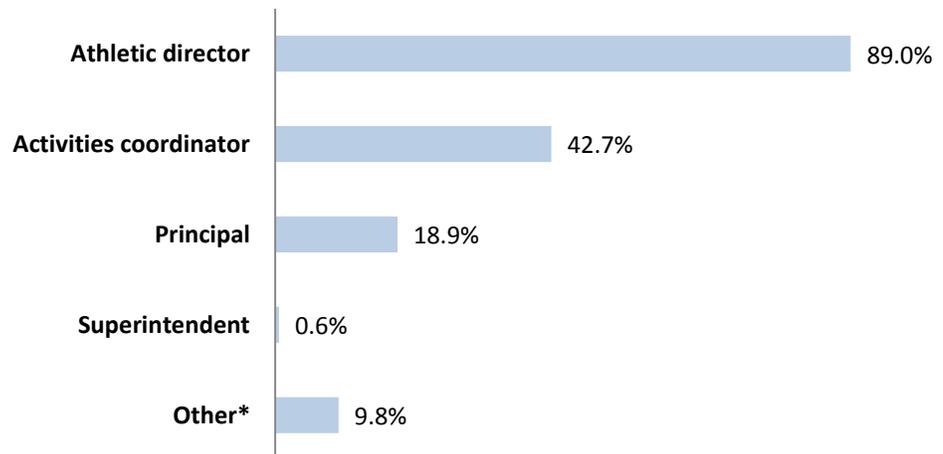
The school description of the respondents is outlined in Table 2 below.

Table 2	School description (n=164)		
	High school	Both high school and middle school	K-12
	36.0%	22.0%	42.1%

Note: a fourth option "middle school" was not selected by any respondents.

The vast majority of respondents identified their role as athletic director (89%), followed by activities coordinator (42.7%) (Figure 1). All but two respondents indicated their role as athletic director, activities coordinator, or both. For the purpose of this report, these two individuals will be considered as athletic directors/activities coordinators. Note that many respondents indicated more than one role.

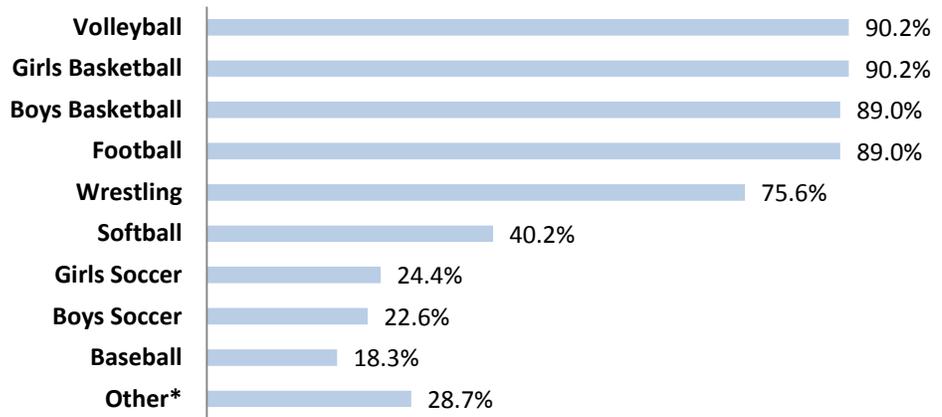
**Figure 1. Respondents' role (multiple responses) (n=164)**



\*Most frequent "other" responses: assistant principal (3.0%), teacher (2.4%), coach (2.4%).

**Figure 2. Sports teams available at school of respondent (multiple responses) (n=164)**

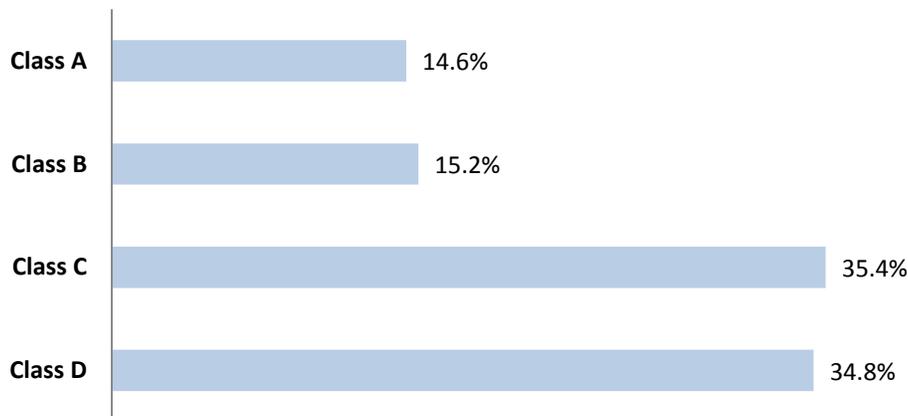
Figure 2 indicates the sports available at the schools of the surveyed athletic directors/activities coordinators. Volleyball, basketball (boys and girls), and football are the most commonly offered sports, with roughly 90% of respondents indicating each one as available at their school.



\*"Other" includes track and field, cross country, golf, tennis, and swimming.

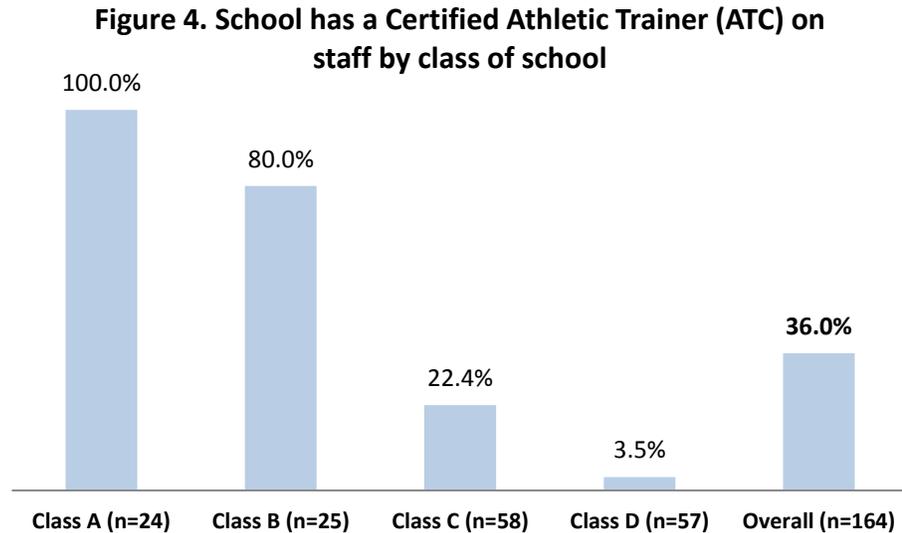
Smaller schools (i.e., Class C and D) had greater representation in the survey compared to larger schools (i.e., Class A and B) (Figure 3). However, the 49 Class A and B schools whose athletic director/activities coordinator participated in the survey comprise approximately 75% to 80% of all Class A and B schools in Nebraska. The 115 Class C and D schools whose athletic director/activities coordinator participated in the survey comprise approximately 50% to 60% of all Class C and D schools in Nebraska.

**Figure 3. Class in which school participates for most sports and activities (n=164)**



## Concussion Policies and Guidelines - Athletic Trainers

There is a dramatic difference between larger and smaller schools with respect to having a certified athletic trainer (ATC) on staff. Larger schools are substantially more likely to have an ATC on staff compared to smaller schools. Altogether, 36% of respondents indicated that their school has an ATC on staff (Figure 4).



Among respondents who indicated that their school has an ATC on staff, 80% or more indicated that an ATC was always or often available for football, wrestling, and boys/girls basketball. Respondents from Class A were notably more likely to indicate the availability of an ATC for each athletic activity, as compared to respondents from all other schools (Table 3). Note the small sample size on this survey item (especially for Classes C and D).

Table 3	ATC is always or often* available for team <u>practices</u> among those whose school has an ATC on staff by sport and class of school				
	Class A (n=24)	Class B (n=20)	Class C (n=12)	Class D (n=2)	Overall (n=58)
<b>Football</b>	100%	89.5%	83.3%	50.0%	<b>91.1%</b>
<b>Wrestling</b>	90.9%	73.7%	72.7%	0.0%	<b>80.7%</b>
<b>Girls Basketball</b>	91.3%	75.0%	75.0%	50.0%	<b>80.7%</b>
<b>Boys Basketball</b>	90.9%	73.7%	75.0%	50.0%	<b>80.0%</b>
<b>Volleyball</b>	87.0%	75.0%	58.3%	50.0%	<b>75.4%</b>
<b>Boys Soccer</b>	81.8%	75.0%	25.0%	-	<b>73.8%</b>
<b>Girls Soccer</b>	78.3%	76.5%	25.0%	-	<b>72.7%</b>
<b>Baseball</b>	55.0%	50.0%	0.0%	-	<b>47.4%</b>
<b>Softball</b>	56.5%	47.4%	9.1%	-	<b>46.9%</b>

\*Response options: always or often, sometimes, rarely or never.

Note: results shown only for those schools that offer each sport. Sample size varies by sport.

Respondents whose school has an ATC on staff indicated that one is available with greater frequency for team competitions, as compared to practices (compare Tables 3 and 4). Again, note the small sample size on this survey item (especially for Classes C and D).

<b>Table 4</b>	<b>ATC is always or often* available for team <u>competitions</u> among those whose school has an ATC on staff by sport and class of school</b>				
	<b>Class A (n=24)</b>	<b>Class B (n=20)</b>	<b>Class C (n=12)</b>	<b>Class D (n=2)</b>	<b>Overall (n=58)</b>
<b>Football</b>	100%	100%	91.7%	50.0%	<b>96.4%</b>
<b>Boys Soccer</b>	95.5%	93.8%	80.0%	-	<b>92.9%</b>
<b>Girls Soccer</b>	90.9%	94.1%	75.0%	-	<b>90.7%</b>
<b>Boys Basketball</b>	90.9%	100%	83.3%	50.0%	<b>90.9%</b>
<b>Girls Basketball</b>	87.0%	100%	81.9%	50.0%	<b>89.3%</b>
<b>Wrestling</b>	86.4%	89.5%	72.7%	-	<b>84.6%</b>
<b>Volleyball</b>	78.3%	75.0%	58.3%	50.0%	<b>71.9%</b>
<b>Softball</b>	65.2%	57.9%	57.1%	-	<b>61.2%</b>
<b>Baseball</b>	68.4%	35.7%	60.0%	-	<b>55.3%</b>

\*Response options: always or often, sometimes, rarely or never.

Note: results shown only for those schools that offer each sport. Sample size varies by sport.

## Concussion Policies and Guidelines - Concussion Management

Athletic directors/activities coordinators were asked about the availability of someone with First Aid or basic life support training, when an ATC is unavailable. Respondents from Class A schools have the most access to someone with such training compared to respondents from all other schools (Table 5).

<b>Table 5</b>	<b>When an ATC is not available during organized practices or competitions, someone with First Aid or basic life support training is always or often* available to the team by sport and class of school</b>				
	<b>Class A (n=24)</b>	<b>Class B (n=25)</b>	<b>Class C (n=57)</b>	<b>Class D (n=57)</b>	<b>Overall (n=163)</b>
<b>Football</b>	95.7%	79.2%	78.9%	73.2%	<b>79.4%</b>
<b>Girls Soccer</b>	87.5%	60.0%	77.8%	-	<b>74.1%</b>
<b>Boys Soccer</b>	91.3%	57.9%	75.0%	-	<b>73.1%</b>
<b>Baseball</b>	90.5%	50.0%	54.5%	-	<b>68.8%</b>
<b>Softball</b>	82.6%	60.9%	63.3%	66.7%	<b>68.4%</b>
<b>Wrestling</b>	91.3%	62.5%	67.9%	57.9%	<b>68.1%</b>
<b>Boys Basketball</b>	91.3%	58.3%	69.1%	54.4%	<b>65.4%</b>
<b>Girls Basketball</b>	87.5%	60.0%	66.7%	54.4%	<b>64.4%</b>
<b>Volleyball</b>	91.7%	60.0%	63.6%	50.9%	<b>62.7%</b>

\*Response options: always or often, sometimes, rarely or never, unknown.

Note: results shown only for those schools that offer each sport. Sample size varies by sport.

Nearly 90% of respondents' schools require athletes to undergo a baseline cognitive screening (such as IMPACT baseline testing) to participate in either all sports (57.7%) or for some sports (31.9%) (Table 6).

Note that respondents who reported "unknown" were not counted as missing and are included in the tabulation in Table 6 below. **Here, and on other survey items, it was deemed that an "unknown" response contained valuable information, as an "unknown" response may more likely be a "no" than a "yes".**

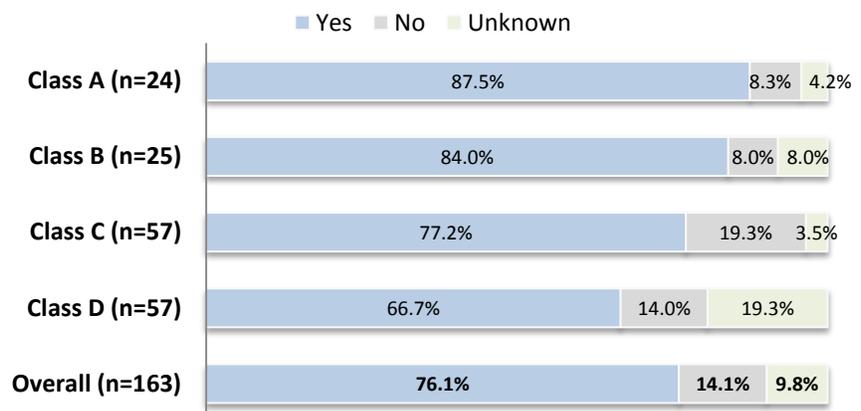
Table 6	Athletes required to undergo a baseline cognitive screening (such as IMPACT baseline testing) to participate in school sports by class of school				
	Class A (n=24)	Class B (n=25)	Class C (n=57)	Class D (n=57)	Overall (n=163)
Yes, for all sports	45.8%	60.0%	50.9%	68.4%	57.7%
Yes, but only for some sports	50.0%	36.0%	31.6%	22.8%	31.9%
No school sport requires this	0.0%	4.0%	15.8%	7.0%	8.6%
Unknown	4.2%	0.0%	1.8%	1.8%	1.8%

A substantial majority (81.0%) of respondents indicated that on-field or off-field mental status evaluations are provided for athletes with suspected concussions for all sports, an additional 11.7% indicated that only some sports conduct such evaluations (Table 7).

Table 7	On-field or off-field mental status evaluations are provided for athletes with suspected concussions by class of school				
	Class A (n=24)	Class B (n=25)	Class C (n=57)	Class D (n=57)	Overall (n=163)
Yes, for all sports	70.8%	88.0%	80.7%	82.5%	81.0%
Yes, but only for some sports	25.0%	12.0%	12.3%	5.3%	11.7%
No school sport requires this	0.0%	0.0%	3.5%	3.5%	2.5%
Unknown	4.2%	0.0%	3.5%	8.8%	4.9%

**Figure 5. School keeps concussion histories for all student athletes by class of school**

Just over three-fourths (76.1%) of athletic directors/activities coordinators indicated that their school keeps concussion histories for all student athletes. Those from larger schools were more likely to indicate that their school keeps concussion histories compared to those from smaller schools (Figure 5).



Just over three-fourths (75.5%) of respondents indicated that coaches or athletic trainers at their school always remove athletes with a suspected concussion from play and 12.3% indicated "often" (Table 8).

<b>Table 8</b>	<b>How often coaches or athletic trainers remove an athlete with a suspected concussion from play by class of school</b>				
	<b>Class A (n=24)</b>	<b>Class B (n=25)</b>	<b>Class C (n=57)</b>	<b>Class D (n=57)</b>	<b>Overall (n=163)</b>
<b>Always</b>	83.3%	76.0%	82.5%	64.9%	<b>75.5%</b>
<b>Often</b>	8.3%	8.0%	8.8%	19.3%	<b>12.3%</b>
<b>Sometimes</b>	8.3%	16.0%	7.0%	7.0%	<b>8.6%</b>
<b>Rarely</b>	0.0%	0.0%	1.8%	5.3%	<b>2.5%</b>
<b>Never</b>	0.0%	0.0%	0.0%	0.0%	<b>0.0%</b>
<b>Unknown</b>	0.0%	0.0%	0.0%	3.5%	<b>1.2%</b>

Almost all (94.5%) of respondents indicated that their school always requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play (Table 9).

<b>Table 9</b>	<b>How often school requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play by class of school</b>				
	<b>Class A (n=24)</b>	<b>Class B (n=25)</b>	<b>Class C (n=57)</b>	<b>Class D (n=57)</b>	<b>Overall (n=163)</b>
<b>Always</b>	91.7%	92.0%	100%	91.2%	<b>94.5%</b>
<b>Often</b>	4.2%	4.0%	0.0%	5.3%	<b>3.1%</b>
<b>Sometimes</b>	4.2%	0.0%	0.0%	0.0%	<b>0.6%</b>
<b>Rarely</b>	0.0%	4.0%	0.0%	0.0%	<b>0.6%</b>
<b>Never</b>	0.0%	0.0%	0.0%	0.0%	<b>0.0%</b>
<b>Unknown</b>	0.0%	0.0%	0.0%	3.5%	<b>1.2%</b>

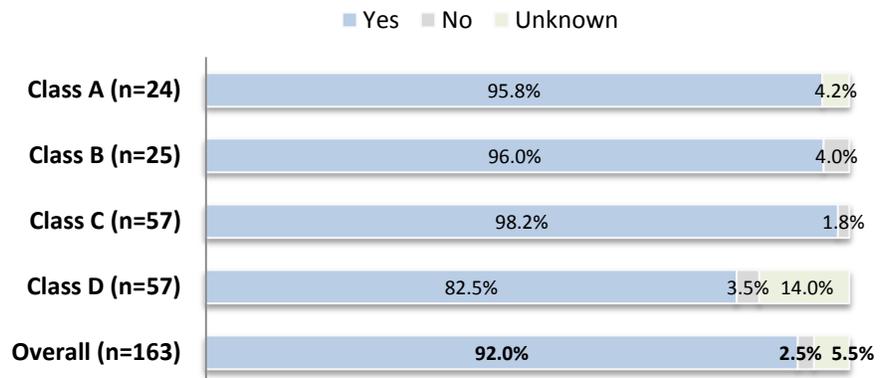
When asked who is most commonly responsible for clearing an athlete to return to play after a suspected concussion, all but two respondents selected one or more approved individuals, which include medical provider/physician, neuro-psychologist, and ATC. Medical providers/physicians are most frequently responsible for clearance of an athlete to play after a suspected concussion (Table 10).

<b>Table 10</b>	<b>Individual(s) most commonly responsible for clearing an athlete to return to play after a suspected concussion by class of school (multiple responses)</b>				
	<b>Class A (n=24)</b>	<b>Class B (n=25)</b>	<b>Class C (n=57)</b>	<b>Class D (n=57)</b>	<b>Overall (n=163)</b>
<b>Medical provider/physician*</b>	70.8%	88.0%	98.2%	96.5%	<b>92.0%</b>
<b>Certified Athletic Trainer (ATC)*</b>	79.2%	56.0%	29.8%	17.5%	<b>36.8%</b>
<b>Parent/guardian</b>	16.7%	16.0%	31.6%	26.3%	<b>27.3%</b>
<b>Coach</b>	4.2%	16.0%	7.0%	8.8%	<b>8.6%</b>
<b>School administrator</b>	0.0%	8.0%	3.5%	7.0%	<b>4.9%</b>
<b>Neuro-psychologist*</b>	8.3%	0.0%	1.8%	1.8%	<b>2.5%</b>
<b>School nurse</b>	4.2%	0.0%	1.8%	1.8%	<b>1.8%</b>
<b>Other</b>	0.0%	0.0%	0.0%	1.8%	<b>0.6%</b>

\*Approved by law (LB260) to clear an athlete to return to play.

Over 90% of athletic directors/activities coordinators indicated that their school keeps track of medical clearances for student athletes who have sustained concussions (Figure 6).

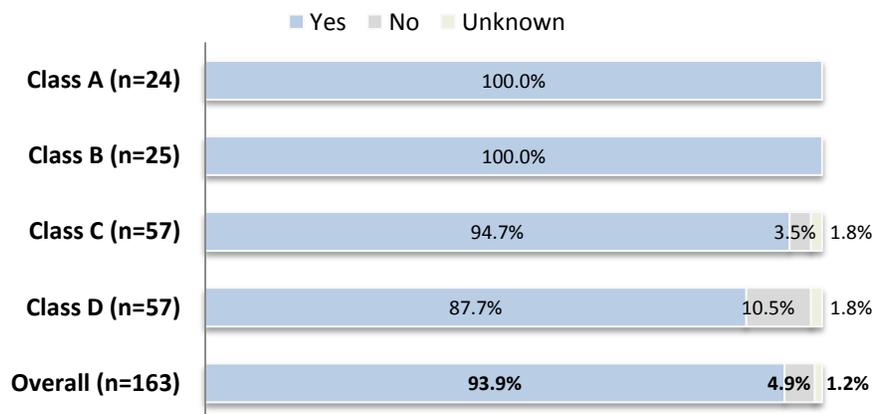
**Figure 6. School keeps track of medical clearances for student athletes who have sustained concussions by class of school**



## Concussion Policies and Guidelines - Coaches

A mandate of LB260 is that training on the signs and symptoms of concussions be made available to coaches before the start of practice for the sport they coach begins. The vast majority (93.9%) of athletic directors/activities coordinators indicated that their school has made concussion training available to coaches (Figure 7).

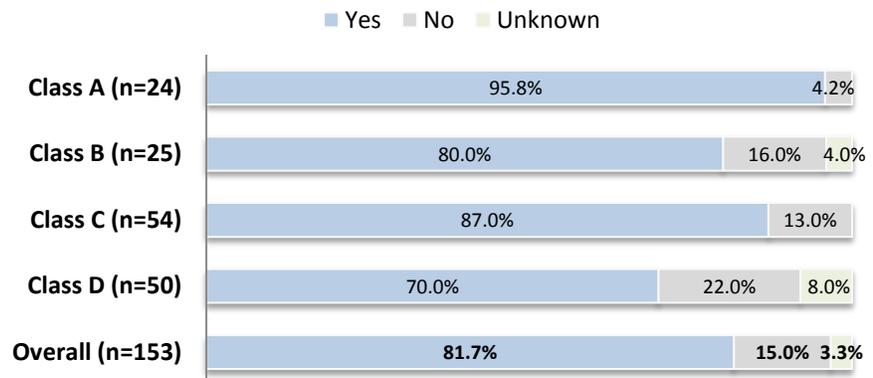
**Figure 7. School has made concussion training available to all coaches at the school by class of school**



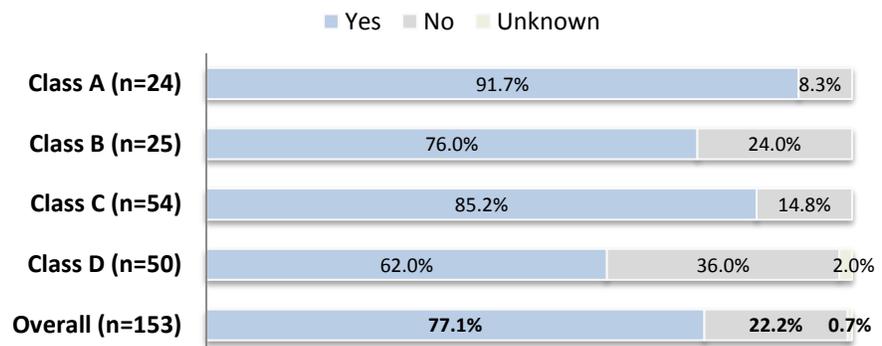
Among those whose school made concussion education training available...

- 81.7% reported that all coaches have participated in the training (Figure 8).
- 77.1% indicated that concussion training education is mandatory (Figure 9).
- 85.6% reported that their school keeps track of which coaches have received concussion education training (Figure 10).

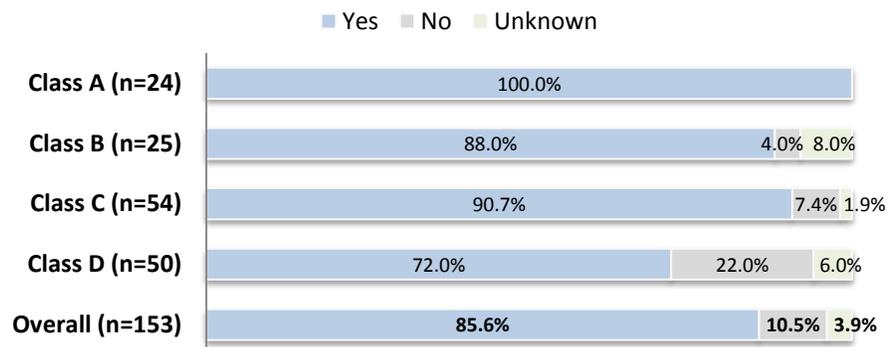
**Figure 8. All coaches have participated in concussion education training among those whose school made concussion training available by class of school**



**Figure 9. School made it mandatory for coaches to take concussion education training among those whose school made concussion training available by class of school**



**Figure 10. School keeps track of which coaches have received concussion education training among those whose school made concussion training available by class of school**



There are four concussion trainings that are included on the Nebraska Department of Health and Human Services' list of approved trainings, and these are listed below in Table 11. Among respondents whose school made concussion training available, 83.7% reported that their school made the training "Concussion in Sports - What You Need to Know (National Federation of High Schools)" available to coaches. It should be no surprise that this training is the most popular, as it is the one concussion training that is recommended by the NSAA.

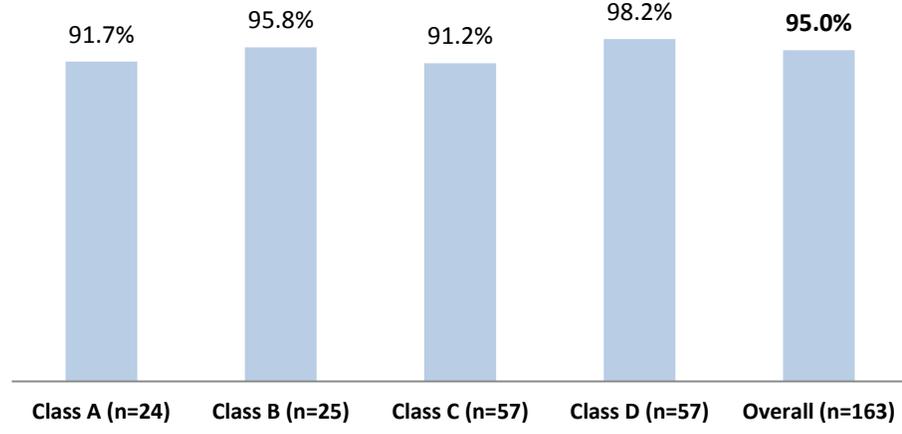
Among participants whose school made concussion training available, 96.1% reported that at least one of the four approved trainings were made available.

<b>Table 11</b>	<b>Type of concussion training made available among those whose school made concussion training available by class of school (multiple responses)</b>				
	<b>Class A (n=24)</b>	<b>Class B (n=25)</b>	<b>Class C (n=54)</b>	<b>Class D (n=50)</b>	<b>Overall (n=153)</b>
<b>Concussion in Sports - What You Need to Know (National Federation of High Schools)</b>	95.8%	80.0%	72.2%	92.0%	<b>83.7%</b>
<b>Heads Up Concussions in Youth Sports (Center for Disease Prevention and Control)</b>	20.8%	28.0%	37.0%	24.0%	<b>28.8%</b>
<b>ACTive Athletic Concussion Training for Coaches (Oregon Center for Applied Sciences)</b>	25.0%	8.0%	14.8%	6.0%	<b>12.4%</b>
<b>ConcussionWise (Sports Safety International)</b>	8.3%	16.0%	9.3%	2.0%	<b>7.8%</b>
<b>Other</b>	8.3%	12.0%	13.0%	10.0%	<b>11.1%</b>

**Most frequent "other" responses:** athletic trainer provided training - 3.3%, speaker/training provided by a local health agency/clinic/hospital - 2.6%, ImPACT - 1.3%, don't remember/not sure/unknown - 2.0%.

An overwhelming majority (95.0%) of athletic directors/activities coordinators agree or strongly agree that concussion training should be mandatory for all coaches (Figure 11).

**Figure 11. Agree or strongly agree\* that concussion training should be mandatory for all coaches by class of school**

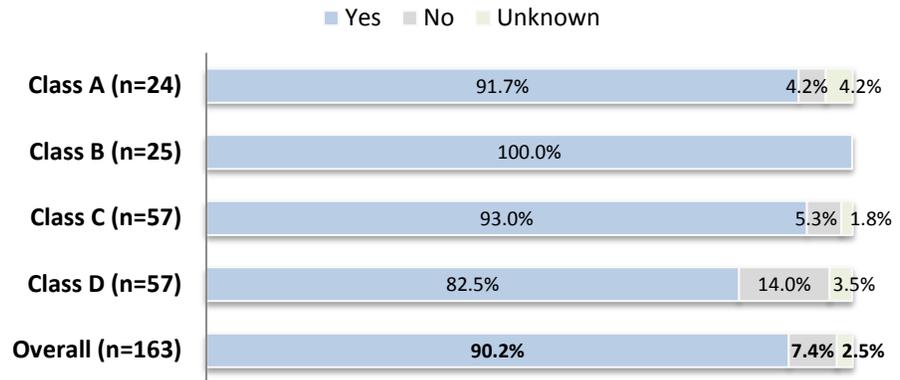


\*Response options: agree, strongly agree, neither agree nor disagree, disagree, strongly disagree.

## Concussion Policies and Guidelines - Parents

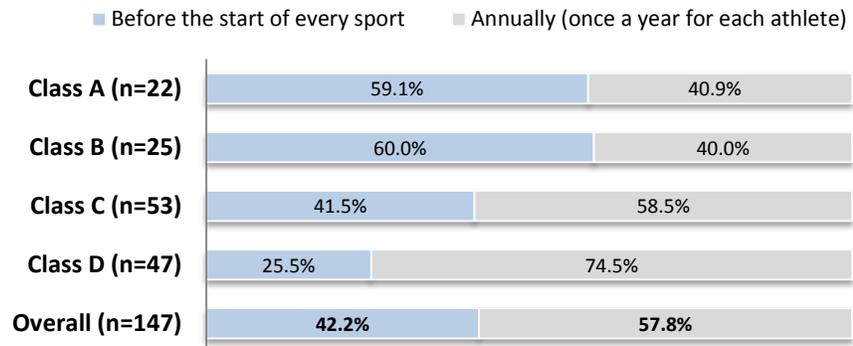
A component of LB260 mandates that parents and athletes be provided with education about the signs and symptoms of concussions before the start of practice. The vast majority (90.2%) of athletic directors/activities coordinators indicated that their school is in compliance with this regulation of the law (Figure 12).

**Figure 12. School provides education to parents and students about the signs and symptoms of concussions before the start of practice by class of school**



Among respondents whose school provided concussion education to parents and athletes before the start of practice, the majority (57.8%) indicated that they provide such education annually for each athlete. The remainder (42.2%) provides education before the start of every sport. Respondents from larger schools (i.e., Class A and B) were more likely to report that their school provides education before the start of every sport (Figure 13).

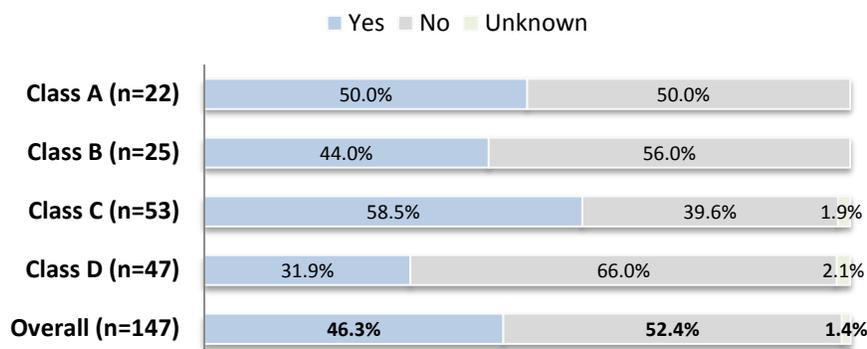
**Figure 13. Time when school provides education to parents and students about the signs and symptoms of concussions among those whose school provides education to parents and students by class of school**



Note: a third response option "once during an athlete's high school career" was not selected by any respondents.

Among those whose school provides concussion education to parents and students, less than half (46.3%) of athletic directors/activities coordinators reported that their school has a form it gives parents to sign after receiving concussion education (Figure 14).

**Figure 14. School has a form it gives to parents to sign after receiving concussion education among those whose school provides education to parents and students by class of school**

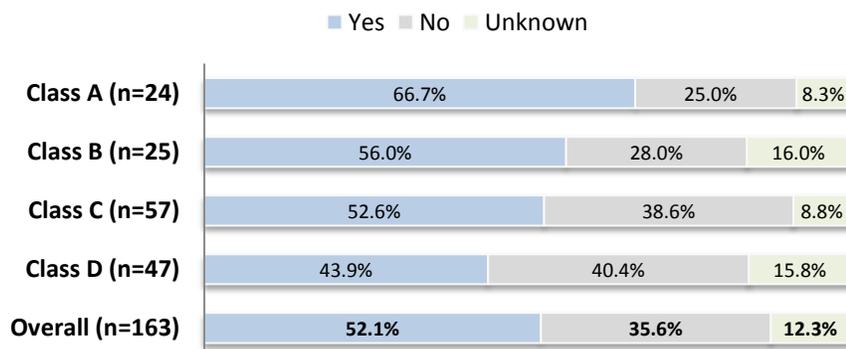


Nearly all (95.7%) of respondents indicated that their school always notifies an athlete's parents or guardians after a suspected concussion (Table 12).

Table 12	How often school notifies an athlete's parents or guardians after a suspected concussion by class of school				
	Class A (n=24)	Class B (n=25)	Class C (n=57)	Class D (n=57)	Overall (n=163)
<b>Always</b>	100%	100%	96.5%	91.2%	<b>95.7%</b>
<b>Often</b>	0.0%	0.0%	3.5%	5.3%	<b>3.1%</b>
<b>Sometimes</b>	0.0%	0.0%	0.0%	1.8%	<b>0.6%</b>
<b>Rarely</b>	0.0%	0.0%	0.0%	0.0%	<b>0.0%</b>
<b>Never</b>	0.0%	0.0%	0.0%	0.0%	<b>0.0%</b>
<b>Unknown</b>	0.0%	0.0%	0.0%	1.8%	<b>0.6%</b>

A shared responsibility form could be used by schools in order to make it explicit to parents and guardians their role in the event that their child receives a concussion. Just over half (52.1%) of respondents indicated that their school has a such a form, with larger schools using such a form more commonly than smaller schools (Figure 15).

**Figure 15. School has a shared responsibility form for parents defining their role in the event that their child sustains a concussion and indicating their understanding of the severity of concussion injuries by class of school**



Nebraska's Concussion Awareness Act (LB260) stipulates that parents provide written approval before their child returns to play after a concussion or suspected concussion. Just under 70% of surveyed athletic directors/activities coordinators indicated that their school always requires parents to provide written approval for their child to return to play (Table 13).

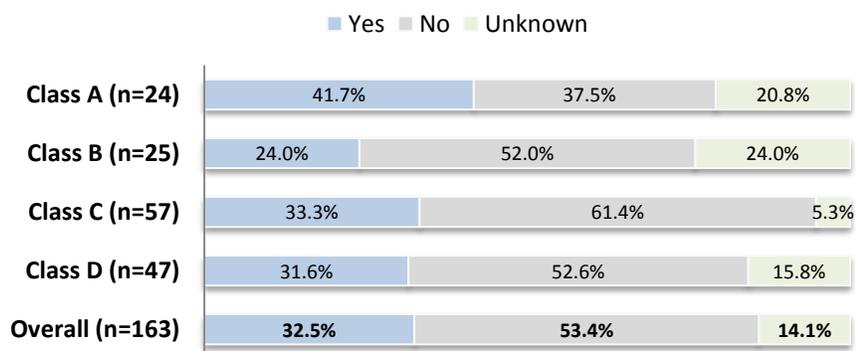
Table 13	How often school requires the parents of an athlete with a suspected concussion to provide written approval before their child returns to play by class of school				
	Class A (n=24)	Class B (n=25)	Class C (n=57)	Class D (n=57)	Overall (n=163)
Always	70.8%	64.0%	73.7%	66.7%	69.3%
Often	0.0%	4.0%	1.8%	7.0%	3.7%
Sometimes	0.0%	8.0%	8.8%	5.3%	6.1%
Rarely	8.3%	8.0%	0.0%	5.3%	4.3%
Never	4.2%	4.0%	8.8%	8.8%	7.4%
Unknown	16.7%	12.0%	7.0%	7.0%	9.2%

## Concussion Policies and Guidelines - Teachers

Although issues surrounding the "return-to-learn" for athletes sustaining concussions are not stipulated by LB260, it may be an issue of policy development for schools.

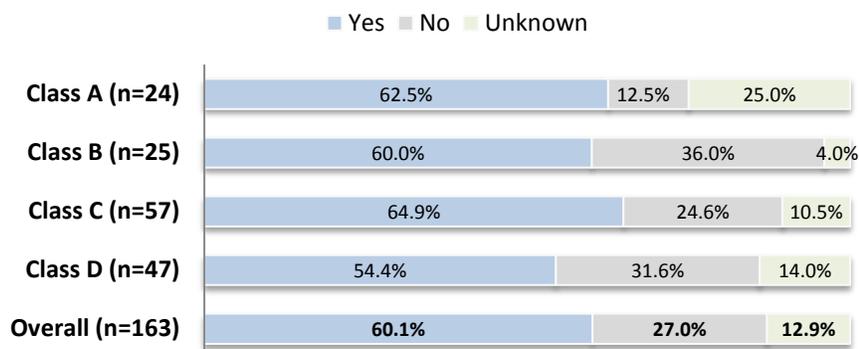
Just under one-third (32.5%) of respondents reported that their school has provided education to teachers about the signs and symptoms of concussions and provided return-to-learn accommodations and/or management of concussions (Figure 16).

**Figure 16. School has provided education to teachers about the signs and symptoms of concussions and return-to-learn accommodations/management of concussions by class of school**



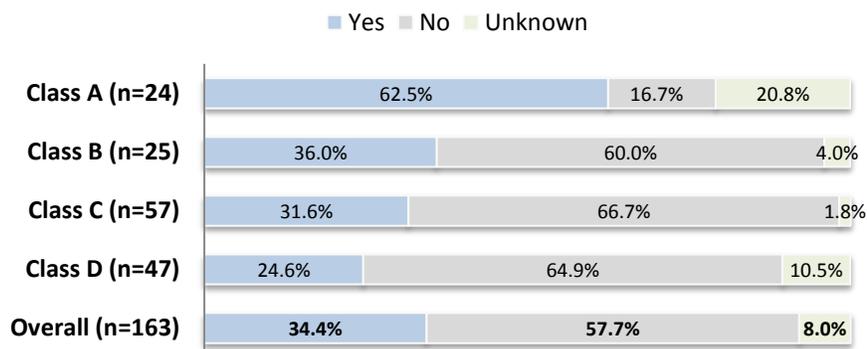
Three-fifths (60.1%) of athletic directors/activities coordinators indicated that their school notifies teachers when an athlete with a suspected concussion returns to the classroom (Figure 17).

**Figure 17. School notifies teachers when an athlete with a suspected concussion returns to the classroom by class of school**



Just over one-third (34.4%) of all respondents indicated that their school has a designated person for concussion management to assist student athletes when they return to school. Among those from Class A schools, 62.5% have such a designated person for concussion management (Figure 18).

**Figure 18. School has a designated person for concussion management to assist student athletes when they return to school by class of school**

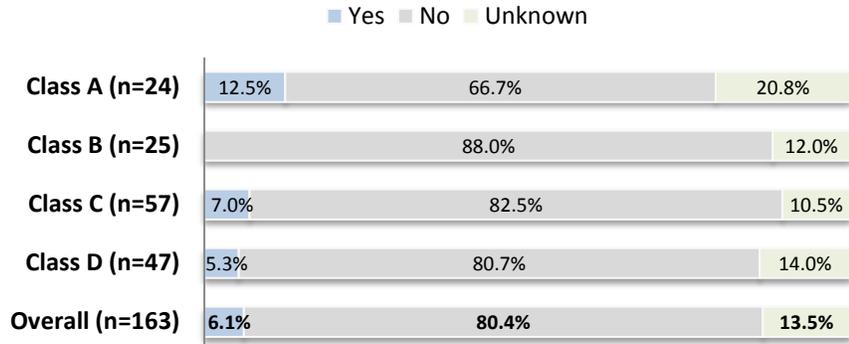


Among those who have an individual responsible for concussion management to assist student athletes when they return to school, a plurality (42.6%) indicated the school nurse as the individual responsible, followed by athletic trainer (29.8%), and athletic director/activities coordinator (23.4%) (Table 14).

Table 14	Job title of individual responsible for concussion management to assist student athletes when they return to school among those whose school has a designated person for concussion management (multiple responses) (n=47)					
	School nurse	Athletic trainer	Athletic director/activities coordinator	School counselor	Superintendent/principal/assistant principal	Coach
	42.6%	29.8%	23.4%	6.4%	6.4%	4.3%

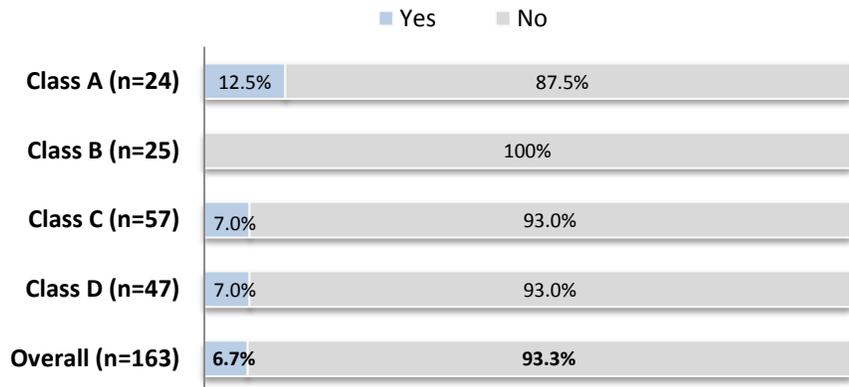
Just 10 respondents (6.1%) indicated that their school has a return-to-learn policy that provides accommodation for the classroom work of a student athlete with a suspected concussion (Figure 19). Although very few schools appear to have a formal policy, the previous figures and table in this section indicate that many schools are providing assistance to student athletes as they return to the classroom.

**Figure 19. School has a written return-to-learn policy that provides accomodation for the classroom work of a student athlete with a suspected concussion by class of school**



A Brain Injury School Support Team (BIRSST) member is available to every school for the purpose assisting the transition to the classroom for youth suffering from a brain injury. Just 11 athletic directors/activities coordinators (6.7%) were aware that a BIRRST is available to their school (Figure 20). Of these 11 respondents, 6 reported that they know how to contact their BIRRST.

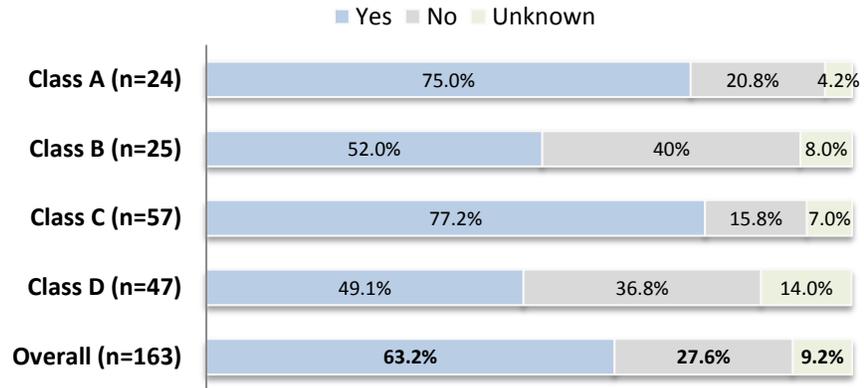
**Figure 20. Aware that a Brain Injury Regional School Support Team (BIRSST) is available to the school by class of school**



## Concussion Policies and Guidelines - School Policy

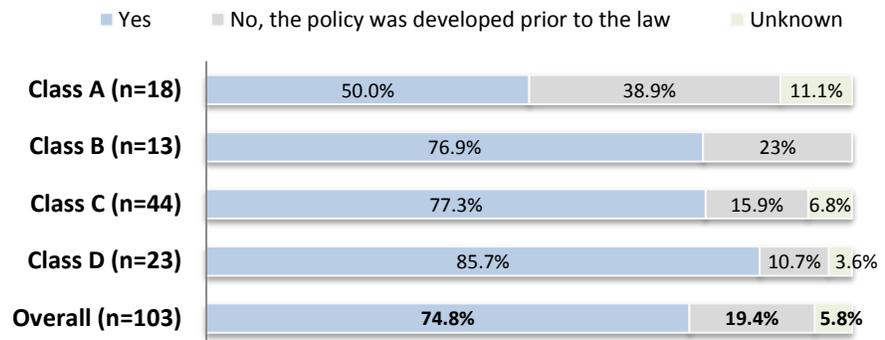
Slightly less than two-thirds (63.2%) of athletic directors/activities coordinators indicated that their school has a formal written policy for removal and return to play for athletes with suspected concussions (Figure 21).

**Figure 21. School has a formal written policy for removal and return to play for athletes with suspected concussions by class of school**



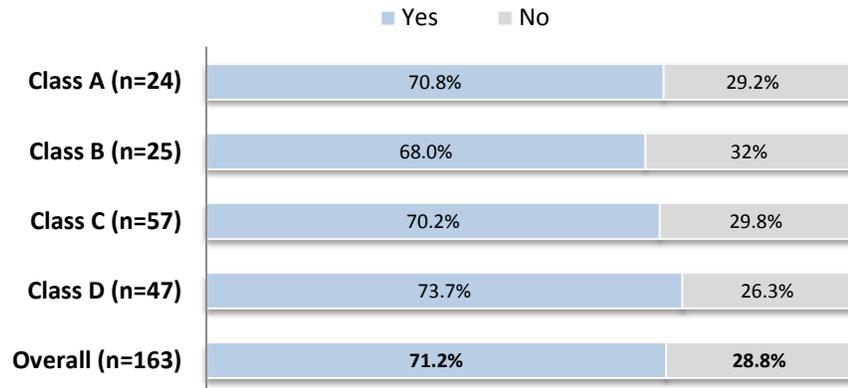
Among those whose school has a written concussion policy, three-fourths (74.8%) reported that the policy was developed as a result of the Concussion Awareness Act (LB260). Schools of Classes B, C, and D were more likely to have developed a concussion policy as a result of LB260, compared to Class A (Figure 22).

**Figure 22. School's concussion policy was developed as a result of the Concussion Awareness Act (LB260) among those whose school has a formal written concussion policy by class of school**



Just over 70% of athletic directors/activities coordinators felt that all school activities should be required to follow school concussion policies (Figure 23).

**Figure 23. All school activities\* should be required to follow school concussion policies by class of school**



\*For example, marching band, cheerleading, etc.

The vast majority of respondents were able to correctly identify the four major components of Nebraska's Concussion Awareness Act (LB260). The least correctly identified component was the requirement for written clearance from a licensed health care professional and from the athlete's parents prior to returning to play, due to a low identification by Class A respondents (Table 15). After answering this survey item, respondents were notified that all four components are part of the law.

Table 15	Correct identification of the components of the Nebraska Concussion Awareness Act (LB260)* by class of school				
	Class A (n=24)	Class B (n=25)	Class C (n=57)	Class D (n=47)	Overall (n=163)
Concussion education training must be made available to all coaches on how to recognize symptoms of a concussion, and how to seek proper medical treatment.	91.7%	100%	94.7%	96.5%	95.7%
Athletes and parents must be provided with information about concussions prior to an athlete's participation in school sanctioned sports on an annual basis.	100%	100%	94.7%	91.2%	95.1%
An athlete suspected of having a concussion must be removed from participation and may not return until evaluated by an appropriate licensed health care professional.	87.5%	96.0%	96.5%	93.0%	93.9%
An athlete removed from participation for a suspected concussion must receive written and signed clearance from an appropriate licensed health care professional and from the athlete's parents prior to returning to play.	75.0%	92.0%	91.2%	89.5%	88.3%

\*Respondents were asked to identify which, if any, of the four components are contained in LB260. The percentages given are for the percent identified the component as part of the law. All four components are contained in LB260.

## Conclusion

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Nebraska's Concussion Awareness Act (LB260) appears to have made a substantial impact on schools, as 75% of all schools that have a formal written policy for removal and return to play for athletes with suspected concussions indicated that the policy was developed as a result of the law. With regard to the development of school concussion policies, schools in Classes B, C, and D were considerably more likely to be influenced by LB260 to create a school policy regarding student athletes with concussions, whereas Class A schools were more likely to have a policy in place already. Nevertheless, half of all respondents from Class A schools with a concussion policy indicated that their schools concussion policy was developed as a result of the law.

By and large, schools are following the mandates of LB260, with 90% or more of surveyed athletic directors/activities coordinators indicating that their school has made concussion training available to all coaches, their school provides education to parents and students about the signs and symptoms of concussions before the start of practice, and that their school requires an athlete with a suspected concussion to be cleared by a health care professional before returning to play. However, one area for improvement comes in the all important removal of athletes with a suspected concussion from play: just over three-fourths (76%) of respondents indicated that coaches and ATCs at their school always remove an athlete with a suspected concussion from play (an additional 12% indicated "often").

An important element, not addressed by LB260, is that of the return to the classroom for athletes with suspected concussions. Very few (just 6%) respondents indicated that their school has a written return-to-learn policy that provides accommodation for the classroom work of a student athlete with a suspected concussion. However, about one-in-three (34%) of respondents indicated that their school has a designated person for concussion management to assist student athletes when they return to school and three-in-five (60%) reported that their school notifies teachers when an athlete with a suspected concussion returns to the classroom.

Some differences are notable when comparing the size of schools. The smallest schools in the state (i.e., Class D) may require some technical assistance in the development of concussion policies and protocols, based upon the results indicating a lower rate of tracking concussion histories, a lower rate of the report that athletes with a suspected concussion are always removed from play, that concussion training is less likely to be made available to all coaches, and, among other issues, a lower rate of providing education on the signs and symptoms of concussions to parents and students among Class D schools compared to schools of a larger size (i.e., Classes A, B, and C).

In general, despite some of these noted concerns at small schools, it could be said that a strong majority of schools across the state are addressing or beginning to address to issue of concussions resulting from organized school sports, and that over time more schools will likely develop and enhance their response to concussions. Results from this survey may serve as a baseline, from which changes in school concussion policies and management may be tracked over time.